IN THE CLAIMS:

Please amend the claims to read as follows:

1.-17. (Canceled)

18. (New) A method of assessing the effectiveness of antiretroviral therapy on an HIV-1-infected patient comprising: detecting, in a biological sample of the HIV-1-infected patient, whether a nucleic acid that exhibits a mutation at codon 66 of a nucleotide sequence encoding HIV-1 integrase is present, wherein the presence of such a mutation correlates with an increase in susceptibility to delavirdine, nevirapine, or efavirenz.

19. (New) The method of claim 18, wherein the mutated codon 66 encodes an isoleucine (I).

20. (New) The method of claim 18, wherein the HIV-1-infected patient is being treated with an antiretroviral agent.

21. (New) A method of assessing the effectiveness of antiretroviral therapy on an HIV-1-infected patient comprising: detecting, in a biological sample of the HIV-1-infected patient, whether a nucleic acid that exhibits a mutation at codon 66 of a nucleotide sequence encoding HIV-1 integrase is present, wherein the presence of such a mutation correlates with a decrease in susceptibility to integrase inhibitor L-731,988.

22. (New) The method of claim 21, wherein the mutated codon 66 encodes a isoleucine (I).

23. (New) The method of claim 21, wherein the HIV-1-infected patient is being treated with an antiretroviral agent.

24. (New) The method of claim 21, wherein the presence of the mutation further correlates with an increase in susceptibility to delavirdine, nevirapine, and efavirenz.

25. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 225 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with an increase in susceptibility to delavirdine.

26. (New) The method of claim 25, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 103.

27. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 236 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with a decrease in susceptibility to delavirdine.

28. (New) The method of claim 27, wherein the presence of the mutation at codon 236 correlates with a decrease in susceptibility to delavirdine and no change in susceptibility to nevirapine.

A1 cont'd

29. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 190 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with an increase in susceptibility to delavirdine and a decrease in susceptibility to nevirapine.

30. (New) The method of claim 29, further comprising detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 101, wherein the combination of mutations at codons 190 and 101 correlates with a decrease in susceptibility to nevirapine or efavirenz.

31. (New) The method of claim 29, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1

reverse transcriptase having a mutation at codon 103, wherein the combination of mutations at codons 190 and 103 correlates with a decrease in susceptibility to delavirdine, nevirapine or efavirenz.

32. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 181 or 230 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with a decrease in susceptibility to delavirdine or nevirapine.

33. (New) The method of claim 32, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codons 181 and 230.

34. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 188 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with a decrease in susceptibility to delavirdine, nevirapine or efavirenz.

A1 cont'd

35. (New) The method of claim 34, further comprising detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 138.

36. (New) The method of claim 18, further comprising detecting whether a nucleic acid that exhibits a mutation at codons 98 and 190 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a combination of mutations correlates with a decrease in susceptibility to nevirapine or efavirenz.

37. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codons 98 and 181 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected

patient, wherein the presence of such a combination of mutations correlates with a decrease in susceptibility to delavirdine or nevirapine.

38. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 106 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with a decrease in susceptibility to nevirapine.

39. (New) The method of claim 38, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 189 or 227.

40. (New) The method of claim 38, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 181, wherein the combination of mutations at codons 106 and 181 correlates with a decrease in susceptibility to delavirdine or nevirapine.

41. (New) The method of claim 40, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 227, wherein the combination of mutations at codons 106, 181 and 227 correlates with a decrease in susceptibility to delavirdine, nevirapine or efavirenz.

A1 cont'd

42. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codons 181 and 227 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a combination of mutations correlates with a decrease in susceptibility to nevirapine or efavirenz.

43. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 100 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient,

wherein the presence of such a mutation correlates with a decrease in susceptibility to delavirdine, or efavirenz.

44. (New) The method of claim 18, further comprising: detecting whether a nucleic acid that exhibits a mutation at codon 103 of a nucleotide sequence encoding HIV-1 reverse transcriptase is present in the biological sample of the HIV-1-infected patient, wherein the presence of such a mutation correlates with a decrease in susceptibility to delavirdine, nevirapine or efavirenz.

45. (New) The method of claim 44, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codon 100 or 188.

46. (New) The method of claim 44, further comprising: detecting whether the biological sample of the HIV-1-infected patient comprises a nucleic acid encoding HIV-1 reverse transcriptase having a mutation at codons 100 and 188.